



## Philip Carey Mis. Co. STATION "R," CINCINNATI, O.



FACTORIES, LOCKLAND,

Ground Plant, 30 Acres.

Floor Surface, 15 Acres.

Established 1873. Incorporated 1888.

Branch Factories: { PLYMOUTH MEETING, PA. BALDWINSVILLE, MASS.

Sole Manufacturers of

## CAREY'S MAGNESIA ROOFING,

85% Carbonate of Magnesia and Standard Asbestos Sectional Steam Pipe and Boiler Coverings

ASPHALT ROOFING PAINTS, ETC.

OF

#### The Philip Carey Mfg. Co.

NEW YORK, N. Y.,
BOSTON, MASS., 164 Federal Street
BALTIMORE, MD.,
PITTSBURGH, PA.,
BUFFALO, N. Y.,
CLEVELAND, O.,
DETROIT, MICH., 17 Jefferson Avenue
PHILADELPHIA, PA., 730 Real Estate Trust Building
ST. LOUIS, Mo., Lincoln Trust Building
CHARLOTTE, N. C., 216 South College Street
TORONTO, ONT., 100 Front Street, East
WHEELING, W. VA., 1505 Main Street
Youngstown, O., 38 North Hazel Street
KANSAS CITY, Mo., 526 Delaware Street
BIRMINGHAM, ALA., 204 Chalifoux Building
CHICAGO, ILL., 177 Randolph Street
MINNEAPOLIS, MINN., 202-206 First Avenue
OMAHA, NEB., 1208 Farnham Street
NEW ORLEANS, LA., 406-418 Canal Street
DENVER, COLO., 17th and Blake Streets
SALT LAKE, CITY, UTAH, 35-37 East Forsyth Street
CINCINNATI O 405 Central Avenue

Entered according to Act of Congress, March 24, 1904, by The Philip Carey Manufacturing Company, in the office of the Librarian of Congress at Washington,

#### FIRST FACTORY

OF



THE PHILIP CAREY MANUFACTURING CO. 1873.

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### CAREY'S

# Magnesia Flexible Cement Roofing

Has become so well and favorably known, that the name "Carey Roofing" is almost sufficient introduction.

Its superiority, both in construction and composition, is shown by it being the oldest prepared roofing retaining its original form on the market to-day.

The cost to manufacture Carey's Roofing far exceeds that of any other composition roof. This fact is clearly seen upon examination and comparison with others. Nothing but selected high grade materials of a standard quality are ever used in its manufacture.

To publish a complete list of the testimonials and buildings where Carey Roofing has been used and proven its worth would fill volumes. Its reputation for durability and economy is more forcibly demonstrated by the constant and increased demand from every section of the country. All leading railroad companies, engineers, architects, builders and real estate owners, know the value of Carey's Roofing. For years it has withstood the severest tests and most critical examination of the highest authorities in the land.

We invite your investigation.

J.A. Freeman, 3rsti M.C. Smith; Vice Presti Mills alt Mills allow Askansas. Annual Capacity Thirty, fivo Millans Ft.

A Louis

Philip Carey Mfg. Co.,

St. Louis. Mo.

Gentlemen:

We have used the Carey Flexible Magnesium Rocfing on some of our dry kilns at our Mill in Arkansas. These kilns are subjected to a heat ranging from one hundred and forty to two hundred degrees, and we find that the highest degree did not in any manner seem to effect the character and quality of the Roofing.

We believe it to be one of the best compositions for such purpose on the market.

Yours truly,

FREEMAN-SMITH LUMBER CO.

June 20, 1903.

#### FOR SHIPMENT.



#### CAREY'S ROOFING

is put up in rolls, each roll containing sufficient roofing to cover 100 square feet surface measure, or a space  $10 \times 10$  feet applied to the building. This is called one square. The proportion of materials furnished with each square or roll consists of two gallons Magnesia Roof Paint, one-half gallon Lap Cement, two pound nails, and necessary strips for cross seams.

Brushes for applying paint or cement are not included except when ordered. We furnish same at reasonable price.

A roll or square of Carey's Roofing, with all the materials for its application, weighs in complete shipping order ninety pounds per square.

WRITE FOR PRICE AND GIVE DIMENSIONS OF YOUR BUILDING.



DEERE-WEBBER BUILDING, MINNEAPOLIS.

40,000 SQ. FT. OF CAREY'S ROOFING.

# The Class of Buildings for which Carey's Roofing is Adapted



Includes any kind of building having a flat or steep surface, and wherever a permanent roof is required.

Carey's Roofing is known as a safe and reliable roof, and will increase the value of any building on which it may be applied. It can also be laid over metal and shingle roofs. Being flexible, it adapts itself to uneven surfaces and will resist greater strain from contraction or expansion than other classes of roofing material.

Cement Roofing can be laid over any solid roof surface, uneven or smooth, and will give the best service accordingly. The photograph reproductions contained in this booklet are intended to convey a general idea of the variety of buildings on which Carey's Roofing can be successfully used.

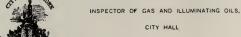


MICHIGAN FURNITURE CO.'S BUILDING, PENN AVE., NEAR SIXTH, PITTSBURGH, PA.

ROOFED WITH CAREY'S ROOFING.

Supt. of Lamps and Lighting

OFFICE OF



CITY HALL

BALTIMORE February 26th, 1904.

Mr. N.S. Kenney., c/o Philip Carey Mf'g Co, Baltimore. Md.

Dear Sir:-

Your letter of the 9th inst, enclosing list of houses covered with the Carey Roofing, in the burned district, received, and noting your query regarding information and data that I secured, as to the fire proof qualities of the Carey Roofing, during the great conflagration which visited Baltimore on February 7th and 8th, I beg to advise you that I have visited each place in question and after a thorough examination 1 found but one Carey Roof completely destroyed, and this was due to its apllication being made on a temporary wooden structure, which was. directly in the path of the flames.

The burning embers seem to have no effect on your roofing whatever, and I believe that the buildings covered by this roofing, which were directly in the path of the shower of burning embers, are in just as good condition now as before the fire and in my opinion are in no way

in need of repair.

I noticed the Maryland Institute burning three or four blocks ahead of the fire, this building was covered with a metal roof, yet as I said before this roof ignited from burning embers, completely destroying the building, while the fire was yet four squares distant.

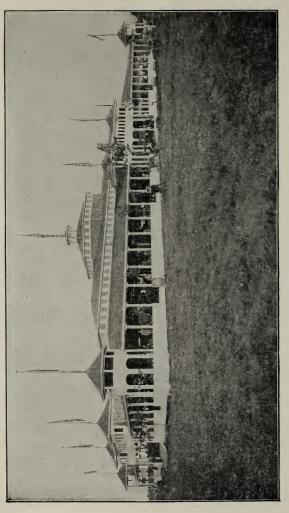
I secured a number of samples from the roofs of those buildings,

the walls of which collapsed, carrying the roof with them.

I have tagged each sample and send them to you under separate It is hardly necessary to make comment of them, for upon examination they will speak for themselves.

Very Truly Yours,

ouis & Wilson



MACHINERY HALL-MINNESOTA STATE FAIR.

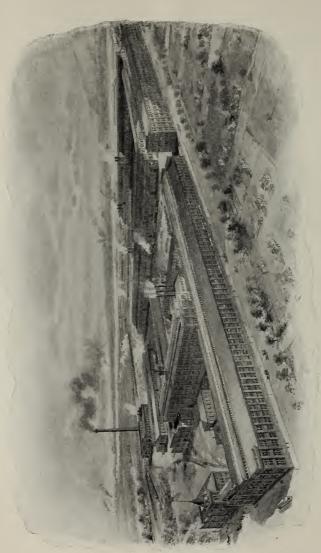
46,000 SQ. FT. CAREY'S ROOFING.

# The Construction of Carey's Magnesia Flexible Cement Roofing.



The base or foundation of Carey's Roofing is a special made woolen felt. Next comes the composition of asphalt cement, with a strong burlap imbedded into the upper surface, the combination of felt cement and burlap being run through heavy steam rollers, making a solid, flexible and compact sheet of roofing, twenty-nine inches in width and about forty-five feet in length. After the roofing is applied to the building the burlap surface is thoroughly painted with Magnesia Paint furnished for the purpose. The paint results in a finish that is airtight, affording additional protection to the asphalt body and preventing contact with the elements and other destructive influences.

A little consideration of the Carey roof construction, with a few samples of different makes of roofing before you, will prove a convincing argument in favor of the Carey roof.



HENRY R. WORTHINGTON HYDRAULIC WORKS, HARRISON, N. J. The largest Steam Pump Plant in the world.

Covered entirely with Carey's Magnesia Flexible Cement Roofing, amounting to twenty-five carloads.

Address all Mail to Box 311.

## International Steam Pump Co. 114-116 & 118 Liberty St., Durchaving Department New York

June 4th, 1903.

Mr. William H. Gray.

Lincoln Trust Building,

St. Louis. Mo.

Dear Sir:-

Replying to your favor of the 1st inst. beg to say that we started to use Carey's Magnesia Flexible Cement Roofing about twelve years ago by covering several of our foundry buildings, and it has proven in every way satisfactory under the most trying conditions: therefore believe it to be the only roofing on the market suitable for heavy manufacturing plants.

The Carey people have just completed the application of one thousand squares roofing on our foundry buildings at Buffalo, N. Y. and also on our foundry and machine shop at East Cambridge. Mass. and we certainly expect to continue in the use of this roofing, therefore think you will make no mistake in adopting its use.

Very truly yours.

INTERNATIONAL STEAM PUMP COMPANY,

a. F. Colling, PURCHASING ACENT.



BRINKERS BUILDING,

WILKINSBURG,

PITTSBURGH, PA.

ROOFED WITH CAREY'S ROOFING.

# The Application of Carey's Magnesia Flexible Cement Roofing.

Honest and intelligent labor is all you require in the application of Carey's Roofing. Any one can put it on who is sufficient mechanic to handle a



echanic to handle a knife and hammer.

Prepare the roof surface with good dry sheathing laid close, the same as used for a slate or tin roof. The usual grade of roof boards may be used for ordinary buildings, but we recommend tongue and grooved sheathing for build-

ings of permanent construction, which can be had at little additional expense. The results in the end will more than justify the slight difference in first cost.

The cost of applying Carey's Roofing is governed by the style of roof surface, location of building, and speed of the workmen. On an average it should not exceed thirty cents per square. The roofing is put up in convenient form, with all necessary materials furnished for the application, and labeled according to their respective use. In addition, our instruction sheet gives a detailed explanation.

### SOUTHERN CLAY MANUFACTURING CO. GENERAL OFFICE FIRST NATIONAL BANK BUILDING. "CHATTANOOGA TENNESSEE

December 16th., 1903

Wheland Machine Works,

Chatanooga, Tenn.

Gentlemen: -

Replying to your letter of the 15th. We have been using the Carey Roofing for the past ten years and it has given us satisfaction, both as to lasting qualities and economy.

Yours very truly,

SOUTHERN CLAY MANUFACTURING COMPANY.

P.T.

### The Composition

## of Carey's Magnesia Flexible Cement Roofing



A CORNER IN OUR LABORATORY.

Is a combination of asphalt and other suitable materials, absolutely free from tar or similar ingredients.

Our process of manufacture produces a cement compound of remarkable elasticity and endurance, which will withstand the ravages of time, heat, cold, gases, steam and fumes

longer than any known roofing composition. Crude tar and asphalt will run under a temperature of from 80 to 90 degrees fahrenheit, while Carey's composition will not lose its form nor run under 300 degrees of heat. The composition after being made up into the roofing will resist a higher temperature than is ever required of any roof in actual use.

More remarkable is the fact that Carey's composition WILL NOT DRY OUT, but retains its elasticity under all conditions of exposure and as long as the building stands.

The average life of roofing compositions is from three to five years. Carey's composition is practically indestructible. The success of Carey's Roofing proves our claims in this respect.



ANDRUS BLOCK,
MINNEAPOLIS.

19,300 SQ. FT. OF CAREY'S ROOFING.

# Specifications for Applying Carey's Roofing for Architects Use.

All flat and steep surfaces on building to be roofed with Carey's Magnesia Flexible Cement Roofing, manufactured by the Philip Carey Mfg. Co., Lockland, O.

The roofing to be applied by careful workmen and in accordance with instructions furnished by the manufacturers. The building to be prepared by sheathing, with dry-surfaced lumber laid close, ----sheathing to run lengthwise with the building. All knots, nailheads, and other projections to be removed from sheathing before application of roof is commenced. Lay the roofing with burlap side to the weather, running the sheets parallel with the sheathing. The sheets are to be lapped together fully one and one-half inches, and nailed securely through both sheets to roof boards, care being used to avoid driving nails through cracks, etc. Nails must be driven about two inches apart. After the roofing sheets have been nailed, cement the laps down over the nailheads and seams, making all such connections absolutely watertight. Roof is then to be completed by painting entire upper burlap surface with Carey's Magnesia Paint, supplied for this purpose.



SECOND CHURCH OF CHRIST SCIENTIST, EUCLID AVE., CLEVELAND, O.

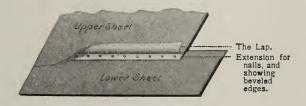
ROOFED WITH CAREY'S ROOFING.

#### Joining the Sheets.

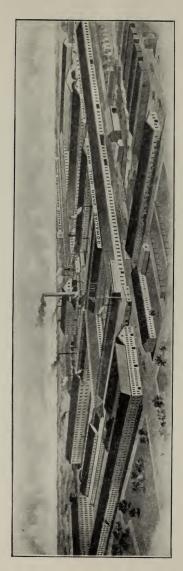
AN INTERESTING FEATURE IN THE APPLICATION OF

#### CEMENT ROOFING.

One edge of each roofing sheet is extended into a lap, while the opposite edge is beveled down, to make a perfect fit when the sheets are joined. The



lower sheet extends up underneath the upper sheet about one and one-half inches. The sheets after being nailed together form a solid and thoroughly watertight connection that can not work loose. The object of the lap is to cover all nailheads and the seam, protecting the nails from rust and preventing water from seeping through the joints. The roofing is flexible, consequently will withstand ordinary contraction and expansion without danger of breaking the joints.



DOWAGIAC MANUFACTURING COMPANY, DOWAGIAC, MICH.

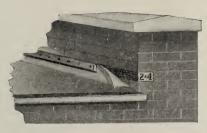
500,000 SQ. FT. CAREY ROOFING.

The Largest exclusive Grain Drill Plant in the World.

#### The Flashing.

A simple and effective method of single flashing to walls, especially in the

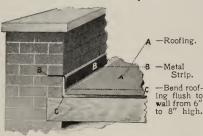
case of new buildings, is to lay a wooden strip 2x4 inches in the wall about five inches above the level



of the sheathing boards (see cut). Bring the roofing up straight against the wall and bend it up carefully (to avoid breaking), and so that it will fit closely to the

wall. Apply a quantity of the lap cement between the bricks and roofing, then nail the upper edge of roofing flash to the 2x4, using a wooden cleat to hold it firmly in place.

Counter flashing is also a safe and permanent means of attaching the roofing to walls, chimneys, etc., where the walls are not provided with 2x4



strips. Particular attention should always be given to this part of the application, whatever roofing is used. We supply explicit directions with all orders, covering these points thoroughly.

# Fireproof Qualities of Carey's Magnesia Flexible Cement Roofing

During the many years we have been manufacturing Carey's Roofing we have had numerous opportunies of seeing its fireproof qualities fully substantiated. No roofing material can be made that would afford greater protection from fire than Carey's Roofing. Few persons understand clearly the essential requirements of a fireproof roof, and in order to test its qualities in this respect, they expose a small sample to a direct flame, and if it slightly feeds combustion, the conclusion is reached at once that the roof is not fireproof. This is neither a practical nor a fair test, and does not prove the question one way or the other. The conditions of exposure to which a Carey roof is subjected when in actual use on a building are entirely reversed, and to properly test its fire resisting qualities, a finished painted sample should be secured and live coals or fire brands applied to the upper surface and allowed to remain until cooled, the same as they would be on the roof. Such a test will convince the most skeptical.

In case of fire from within, our roofing forms a crust, retaining its natural form and offering greater protection to the building than a metal roof, which, under the same circumstances, would buckle and fly apart, leaving the sheathing and other woodwork exposed, giving the flames greater draught and increasing the chances of total destruction to the building tenfold.

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#### Fireproof Qualities.

A good example illustrating our claims is given in the photograph shown of the City Drug Store, South Lake Linden, Mich., destroyed by fire Sept. 2, 1901.



The building was entirely gutted, supports destroyed, allowing roof to fall into the flames and remain there until the fire was extinguished. The roofing material was simply charred around the edges.

Carey's Roofing receives the same rating as slate or metal by nearly every inspection bureau in the U. S.

See letters, furnished with testimonials.

The Canadium Loamolive Company.

Similed:

Propingradium: Other of the Managinal Livecture ADDRESS ALL ON STREET

Kingston, Onti

Messrs The Philip Carey Mfg. Co.,

Toronto. Ont.

Gentlemen: -

Replying to yours of the 17th inst. with reference to the attitude taken by the Underwriters regarding your roofing, we beg to say that we are insured in The New England Mutuals, placing the business 'hro' the Arkwright Company of Boston. These Companies, as you are doubtless aware, carry more insurance than any other combination in the World, and are probably more particular in their requirements and inspection than any other Companies. They have accepted your roofing as satisfactory without any question whatever, and it seems to us you could not have any higher testimonial.

In addition to this, we may say that the roofing is giving us entire satisfaction as such.

Yours truly,

СВ

Canadian Locomotive Co'y, Limited

Menaging Director

## The Care of Cement Roofing.

The roof is usually more neglected than any other part of the building, and for that reason alone

> we especially urge careful consideration of the substantial construction and durable nature of the Carey Roofing.

To obtain the best results, we recommend occasional painting of Cement Roofing, in order to secure a firm, heavy finish, which will throw the natural wear and tear on the painted

surface and afford the body of the roof additional protection. It is not necessary to paint as frequently as you would metal or other composition roofs, but judge by the circumstances and conditions of exposure to which your roof may be subjected.

Don't conceive the idea that the roofs sold under the statement that "no paint is required" will prove durable. They must be painted, and in a short time after being applied, and while left unpainted they are dried out and their life shortened, consequently repainting thereafter becomes more frequent and necessary. We give sufficient paint to go over Carey's Roofing when it is applied, although it would stand longer without paint than any other roof.



WINONA APARTMENT HOUSE, CLEVELAND, O.

ROOFED WITH CAREY'S ROOFING.

# The Durability of Carey's Magnesia Flexible Cement Roofing.

From the general construction and composition of the Carey Roofing you can see the force of our ar-



guments concerning its durability brought out and clearly demonstrated. The heavy woolen felt alone, which is the foundation of cement roofing, is in itself equal, if not superior, to many of the roofing materials now on the market. On top of that you have the flexible asphalt composition, then a strong burlap, and finally the painted fire-

proof surface, all embodied in the one roof, and forming one of the most substantial roof coverings so far produced. The Carey Roofing is made to last. Every little detail of its manufacture is in the hands of experienced and competent workmen. It is in use on buildings of every class, and no roofing material bears a higher record for durability.

A Carey roof applied with reasonable care and ordinary attention, lasts the life of the roof boards and will prove far less expensive than shingles, metal, or any form of gravel-surfaced and prepared paper roofing.

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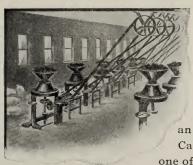
REALTY BUILDING, CHARLOTTE.

ROOFED WITH CAREY'S ROOFING.

### CAREY'S

#### ASPHALT ROOFING PAINT.

For renewing and preserving from rust and decay all classes of tin, iron, steel or metal surfaces,



boiler fronts, smoke stacks, fences, railings, pipes, tanks, bridges, etc.

Old felt, composition and wooden roofs can be preserved for years with an occasional coat of Carey's Paint. We have one of the largest and most modern equipped factories

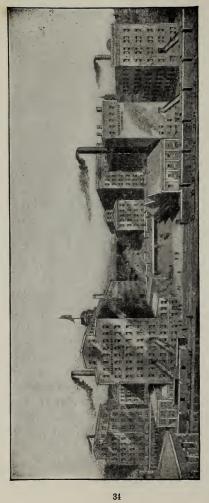
IN OUR PAINT DEPT.

for the manufacture of this particular class of paint in the U. S., and can at all times quote the lowest prices consistent with good quality.

Carey's Paint is made to conform with the variable conditions of weather and other severe exposure to which paints of this class are subjected.

Quality, skill and experience are combined in the manufacture of these goods, and in adopting their use you can feel assured of receiving paint that will suit your requirements and prove entirely satisfactory.

The paint is put up in packages ranging from one gallon cans to barrels.



WASHBURN-CROSBY MILLS, MINNEAPOLIS, MINN.

ABOUT 80,000 SQ. FT. OF CAREY'S ROOFING.

## Measurements for Carey's Roofing.

To estimate the amount of roofing required for a flat surface, say twenty-five feet long by twenty feet wide, multiply  $25 \times 20 = 500$  square feet, or five squares.

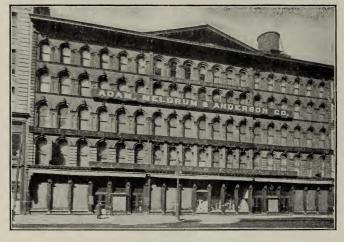
Each roll or square of Carey's Roofing will cover 100 square feet of surface, applied on the building.

For a pitch, or hip roof, measure the length of rafters and multiply with length of roof surface. Suppose the roof is 30 feet long, and the rafters measure 12 feet in length, multiply  $30 \times 12 = 360$  feet, and if the opposite side of the roof is the same size, double the amount, 360 + 360 = 720 square feet for entire building.

To ascertain the length of rafters when the span and pitch are given, the following table will apply:

Multiply span by .559 when the pitch is ¼"

FOR EXAMPLE: A building having a span of 25 feet, with ¼" pitch roof, multiply  $25 \times .559 = 13.97 +$ , or the rafters being nearly 14 feet long. Make no deductions for chimneys, skylights, dormer window or ventilator, unless such openings measure more than 50 square feet; if more than 50 square feet and not more than 100 square feet, deduct half the size of the opening; if more than 100 square feet, deduct the full size of the opening. Extra cutting and fitting the roofing for flashing such openings is about equal to the material cut out.



ADAM, MELDRUM & ANDERSON CO. BUILDING, BUFFALO.

ROOFED WITH CAREY'S ROOFING.

### CAREY'S

#### ROOF REPAIRING CEMENT.

For patching and repairing leaks in gravel, felt, tin, or shingle roofs, this cement will be found suit-



able, inexpensive and convenient to have on hand. Frequently small leaks will occur around chimneys, fire walls, skylights, etc. No need to engage a roofer when

with Carey's Cement you can quickly and permanently repair the damage. The cement is

A ROW OF MIXERS.

put up in cans and prepared for immediate use, being applied with an ordinary trowel, or wooden paddle. Full directions for proper use will be found on each can.

To save freight and enable us to make prompt shipment of any size orders, a full assortment of packages, including paint and cement, are carried in stock at our various branches.

For prices and any special information you would like to have write us, and your inquiries will receive prompt attention.

### CAREY'S

# 85% Magnesia Pipe and Boiler Coverings.



#### THE STANDARD OF EXCELLENCY.

CAREY'S COVERINGS ARE KNOWN THE WORLD OVER FOR THEIR HIGH QUALITY, EFFICIENCY, LIGHTNESS, DURABILITY.

Woolen Felt, Asbestos, Brine and Ammonia Pipe Coverings of every description. Locomotive Lagging, Magnesia Cement, Asbestos Packing.

We manufacture the most complete line of coverings made in the United States.

Send for our descriptive pamphlets and catalogue and learn their value.

## The Carey Roofing is Free from these Objections:

TIN, IRON
AND
STEEL
ROOFING.

Will rust.
Affected by moisture, fumes, gases, etc.
Breaks at joints from contraction and expansion.
Application requires skilled mechanic.
Requires constant repainting.
Expensive to repair.
Rattles from wind.
Cold in winter and hot in summer.
Not sufficiently fireproof.

SHINGLE ROOFING. Good shingles are scarce and expensive.

Machine made shingles warp and decay and
last about five years.

Can only be used on steep surfaces.

No protection from fire.

Expensive to lay.

SLATE ROOFING. Good slate is very durable, but the most expensive of roofs.

Requires strong construction on account of great weight.

Cheap slate is worthless at any price.

For steep roofs exclusively.

Not desirable for factories, mills, etc.

Broken easily by frost, or walking over.

Will dry out, crack and break.

Almost impossible to locate leaks.

TAR
AND GRAVEL
ROOFING.

Heavy, unsightly.
Unreliable roofers can put it on at almost any price, realizing a good profit, and apparently comply with the specifications.
This class of roofing has degenerated.

The better grade of asphalt and gravel roofing will cost double that of Carey's, and not then give as good service.

### CAUTION!

石

TO WHOM IT MAY CONCERN:

We beg to call your attention to U. S. Patent No. 402,559, dated May 7, 1889; and No. 636,022, of Oct. 31, 1899, under which we manufacture

# CAREY'S Magnesia Flexible Cement Roofing.

As owners of these patents, we claim the sole right to manufacture and sell "CAREY'S IMPROVED MAGNESIA FLEXIBLE CEMENT ROOFING LAP SEAM."

In order that all may be aware of our rights, we hereby notify all interested parties that we shall prosecute infringers, whether they be makers, dealers or users.

THE PHILIP CAREY MFG. Co.



